



HMIs and industrial PCs

HMIs and industrial PCs are the key to the efficient operation and monitoring of your systems and machines. You can work with a portable Bluetooth tablet PC directly on site – or design detailed user interfaces as the interface to your system using a powerful HMI device.

Industrial PCs and HMIs from Phoenix Contact are so versatile and flexible that they do not present any restrictions for your operation and monitoring concepts. Visu+ and WebVisit are the corresponding visualization software tools. In addition to the wide range of products, we also provide worldwide service.

HMIs

Human-machine interfaces, or HMIs for short, represent cost-effective automation based on efficient input and monitoring. Depending on your requirements, you can select devices for basic, standard or high-end applications. Whether directly on site, centrally in the control center, high performance or multifunctional: it is you who determines the features of the HMIs.

Industrial PCs

Industrial PCs, or IPCs for short, combine the computing capacity of modern processors with the robustness and reliability of industrial components. Together with the right software, IPCs are efficient and versatile solutions for controlling, operating, and monitoring systems and machines.

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Industrial PCs	
Box PCs	128
Monitors with touch function	132
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Product overview

Minitouch		Web panels							
Type	TD 1030T	Type	WP 04T WP 06T	Type	WP 10T WP 15T	Type	WP 07T/WS WP 09T/WS	Type	WP 06T/XC WP 07T/XC
Description	2.8" color TFT display	3.5"/5.7" color TFT display	10.4" ... 15" color TFT display	Widescreen 7" ... 9" color TFT display	7" ... 9" color TFT display	Outdoor 5.7" ... 7" color TFT display			
Page	120	Page	120	Page	121	Page	121	Page	121
Touch panels									
Type	TP 3057M ...	Type	TP 3xxxT ...	Type	TP 5xxxT	Type	TP 5xxxC	Type	TP .../M 201
Description	5.7" monochrome display PROFIBUS DP, MPI, CANopen® or serial interface as an option	5.7" ... 12.1" color TFT display	12.1" ... 17" color TFT display Intel Atom CPU	12.1" ... 17" color TFT display Celeron M CPU	7" ... 15" display Touch panel for maritime applications				
Page	122	Page	122	Page	124	Page	124	Page	126
Box PCs									
Type	VL BPC MINI	Type	VL BPC 1000	Type	VL BPC 1001	Type	VALUELINE IPC	Type	VL IPC P7000
Description	Box PC for DIN rail mounting	Box PC for DIN rail mounting	Box PC for DIN rail mounting	Configurable box PC for wall mounting without/with PCI extension	Configurable box PC for wall mounting				
Page	128	Page	129	Page	129	Page	130	Page	131
Monitors with touch function									
Type	VL FPM 12(U)	Type	VL FPM 15(U)	Type	VL FPM 17(U)	Type	VL FPM 19U	Type	Accessories
Description	12.1" color TFT display, optional USB port on front	15" color TFT display, optional USB port on front	17" color TFT display, optional USB port on front	19" color TFT display, with USB port on front	Transparent, silicon-free protective foil for 15" touch screen				
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Panel PCs

Type	EL PPC7 1000 EL PPC9 1000	EL PPC12 1000 EL PPC15 1000	VALUELINE IPC	VL IPC P7000
Description	Configurable panel PC with 7" ... 9" widescreen display	Configurable panel PC with 12" ... 15.4" widescreen display	Configurable panel PC with 12" ... 24" display without/with PCI extension	Configurable panel PC with 12" ... 24" display
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IP65 panel PCs

Type	DL PPC15 1000	DL PPC15M 1000	VMT 30xx	VMT 30xx EXP SUN
Description	Configurable panel PC with IP65 protection with touch screen, 15" display	Configurable panel PC with IP65 protection with multi-touch screen, 15" display	Configurable panel PC with IP65 protection with touch screen, 8" ... 15" display	Panel PC with IP65 protection with touch screen, 10.4" ... 12.1" sunlight readable display
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Tablet PCs

Type	TPC 6013...
Description	Mobile tablet PC with touch screen, 13.3" display 3-point belt, hand strap, touch pen, mechanical docking with lock, replacement battery

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Software

Type	WEBVISIT ...	VISU+ 2 ...

See "Software" section

Software PLC

Description

The software PLC transforms your PC into a controller

See "Controllers" section

HMs for basic applications

Minitouch and web panels

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Web panel and minitouch devices are inexpensive operator panels for basic operation and monitoring tasks.

Features:

- Tailor-made for class 100 compact controllers
- Fast startup thanks to plug & play
- **Minitouch:** alphanumeric 4-color display
- **Web panel:** full graphic color display for clear representation
- Quick and user-friendly representation of your control variables using PC Worx EXPRESS and WebVisit software tools
- Multi-user operation thanks to server/client structure
- Easy device replacement, as the project is saved on the PLC



Minitouch
7.1 cm (2.8") TFT color display



Web panel
8.9 cm (3.5")/14.5 cm (5.7")
TFT color display

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Notes:

1) EMC: Class A product, see page 553

Display data	
Display	7.1 cm/2.8" TFT active
Monitor resolution	320 x 240 Pixel (QVGA)
Display lighting type	LED
Brightness	280 cd/m ² , typical (adjustable)
Display backlight MTBF	40000 h
Color spectrum	4 colors
Touch screen	Resistive industrial touch screen
Computer data	
Operating systems	Keil RTX (RTOS)
Processor	Cortex™-M3 120 MHz
Main memory	96 kB SRAM
Data memory	512 kB flash memory
Interfaces	None
External dimensions	
Width	96 mm
Height	72 mm
Depth	60 mm
Installation dimensions	
Width	92.8 mm
Height	68.7 mm
Installation depth	53.5 mm
General data	
Degree of protection	IP54 (front), IP20 (back)
Ambient temperature (operation)	0 °C ... 50 °C
Mounting type	Installation in front plate
Vibration (operation)	DIN EN 60068-2-6
Shock	DIN EN 60068-2-27

Technical data		Technical data	
WP 04T ¹⁾	WP 06T ¹⁾	WP 04T ¹⁾	WP 06T ¹⁾
8.9 cm/3.5" TFT active	14.5 cm/5.7" TFT active	320 x 240 Pixel (QVGA)	320 x 240 Pixel (QVGA)
LED	LED	350 cd/m ² , typical (adjustable)	380 cd/m ² , typical (adjustable)
350 cd/m ² , typical (adjustable)	380 cd/m ² , typical (adjustable)	40000 h	40000 h
65,536 colors	65,536 colors	Resistive industrial touch screen	Resistive industrial touch screen
Windows CE 5.0	Windows CE 5.0	RISC ARM9™ CPU : 200 MHz	RISC ARM9™ CPU : 200 MHz
None	None	64 Mbyte SDRAM	64 Mbyte SDRAM
None	None	32 Mbyte flash memory	32 Mbyte flash memory
None	None	2x USB Host 2.0	2x USB Host 2.0
96 mm	120 mm	120 mm	168 mm
72 mm	90 mm	90 mm	126 mm
60 mm	5 mm	5 mm	5 mm
92.8 mm	112 mm	112 mm	160 mm
68.7 mm	82 mm	82 mm	118 mm
53.5 mm	35 mm	35 mm	42 mm
IP54 (front), IP20 (back)	IP65 (front), IP20 (back)	0 °C ... 50 °C	0 °C ... 50 °C
Installation in front plate	Installation in front plate	DIN EN 60068-2-6	DIN EN 60068-2-6
DIN EN 60068-2-27	DIN EN 60068-2-27	DIN EN 60068-2-27	DIN EN 60068-2-27

Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Minitouch						
- 7.1 cm (2.8") display	TD 1030T	2701257	1	WP 04T ¹⁾	2913632	1
Web panel				WP 06T ¹⁾	2913645	1
- 8.9 cm (3.5") display						
- 14.5 cm (5.7") display						
- 26.4 cm (10.5") display						
- 38.1 cm (15") display						
Widescreen web panel						
- 17.8 cm (7") display						
- 22.9 cm (9") display						
Web panel , extended temperature range						
- 14.5 cm (5.7") display						
- 17.8 cm (7") display						

Ordering data		Ordering data	
Type	Order No.	Pcs. / Pkt.	Type



Web panel
26.4 cm (10.4")/38.1 cm (15")
TFT color display



Widescreen web panel
17.8 cm (7")/22.9 cm (9")
TFT color display



Outdoor web panel
14.5 cm (5.7")/17.8 cm (7")
TFT color display

EN 60068-2-27

Technical data			Technical data			Technical data		
WP 10T ¹⁾	WP 15T ¹⁾		WP 07T/WS ¹⁾	WP 09T/WS ¹⁾		WP 06T/XC	WP 07T/XC	
26.4 cm/10.4" TFT active 800 x 600 Pixel (SVGA) LED 330 cd/m ² 50000 h 65,536 colors Resistive industrial touch screen	38.1 cm/15" TFT active 1024 x 768 Pixel (XGA) LED 480 cd/m ² 40000 h 65,536 colors Resistive industrial touch screen		17.8 cm/7" TFT active 800 x 480 Pixel (WVGA) CCFL 400 cd/m ² , typical (adjustable) 50000 h 65,536 colors Resistive industrial touch screen	22.9 cm/9" TFT active 800 x 480 Pixel (WVGA) CCFL 240 cd/m ² , typical (adjustable) 50000 h 65,536 colors Resistive industrial touch screen		14.5 cm/5.7" TFT active 320 x 240 Pixel (QVGA) LED 400 cd/m ² , typical (adjustable) 40000 h 65,536 colors Resistive industrial touch screen	17.8 cm/7" TFT active 800 x 480 Pixel (WVGA) LED 350 cd/m ² , typical (adjustable) 40000 h 65,536 colors Resistive industrial touch screen	
Windows CE 5.0 RISC ARM9™ CPU ; 200 MHz 64 Mbyte SDRAM 32 Mbyte flash memory 2x USB Host 2.0			Windows CE 5.0 RISC ARM9™ CPU ; 200 MHz 64 Mbyte SDRAM 32 Mbyte flash memory 2x USB Host 2.0			Windows CE 5.0 RISC ARM9™ CPU ; 184 MHz 128 Mbyte SDRAM 64 Mbyte flash memory 2x USB Host 2.0		
295 mm 220 mm 5 mm	400 mm 329 mm		203 mm 147 mm 5 mm	260 mm 172 mm		195 mm 153 mm 5 mm	234 mm 173 mm	
287 mm 212 mm 55 mm	374 mm 303 mm 60 mm		195 mm 139 mm 54 mm	252 mm 164 mm		161 mm 119 mm 42 mm	200 mm 140 mm	
IP65 (front), IP20 (back) 0 °C ... 50 °C Installation in front plate DIN EN 60068-2-6 DIN EN 60068-2-27			IP65 (front), IP20 (back) 0 °C ... 50 °C Installation in front plate DIN EN 60068-2-6 DIN EN 60068-2-27			IP67 (front), IP20 (back) -20 °C ... 70 °C Installation in front plate DIN EN 60068-2-6 DIN EN 60068-2-27		
Ordering data			Ordering data			Ordering data		
Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
WP 10T ¹⁾ WP 15T ¹⁾	2700934 2700935	1 1	WP 07T/WS ¹⁾ WP 09T/WS ¹⁾	2700307 2700309	1 1	WP 06T/XC WP 07T/XC	2701555 2701556	1 1

HMs and industrial PCs

HMs for standard applications

Touch panels

Thanks to the numerous interfaces, drivers, and display sizes, touch panels from Phoenix Contact can be optimally adapted to your requirements. Licenses are already included for the Visu+ software and the OPC server.

Your advantages:

- Save costs and increase service life, thanks to LED backlighting that can be adjusted directly via buttons
- Increase system availability, thanks to temperature and voltage monitoring
- Quick response in the event of an alarm with integrated buzzer (85 dB)
- Global use: additional fonts are easy to install
- Available with PROFIBUS DP, MPI, CANopen®, and serial interface as an option
- Expansion with external flash mass storage



14.5 cm (5.7") monochrome display



14.5 cm (5.7") TFT color display

Notes:

1) EMC: Class A product, see page 553

Display data	Technical data	Technical data				
Display	14.5 cm/5.7" TFT active	14.5 cm/5.7" TFT active				
Monitor resolution	320 x 240 Pixel (QVGA)	320 x 240 Pixel (QVGA)				
Display lighting type	LED	LED				
Brightness	250 cd/m², typical (adjustable)	350 cd/m², typical (adjustable)				
Display backlight MTBF	40000 h	40000 h				
Color spectrum	256-step grayscale	65,536 colors				
Touch screen	Resistive industrial touch screen	Resistive industrial touch screen				
Computer data						
Operating systems	Windows CE 6.0	Windows CE 6.0				
Processor	Xscale® PXA320, 806 MHz	Xscale® PXA320, 806 MHz				
Main memory	128 Mbyte SDRAM	128 Mbyte SDRAM				
Data memory	1 GB flash memory	1 GB flash memory				
Interfaces	2x USB Host 1.1, 1x Compact Flash®	2x USB Host 1.1, 1x Compact Flash®				
External dimensions						
Width	203 mm	203 mm				
Height	147 mm	147 mm				
Depth	5 mm	5 mm				
Installation dimensions						
Width	195 mm	195 mm				
Height	139 mm	139 mm				
Installation depth	49 mm	49 mm				
	55 mm, approximately with fieldbus interface	55 mm, approximately with fieldbus interface				
General data						
Degree of protection	IP65 (front), IP20 (back)	IP65 (front), IP20 (back)				
Ambient temperature (operation)	0 °C ... 50 °C	0 °C ... 50 °C				
Mounting type	Installation in front plate	Installation in front plate				
Vibration (operation)	DIN EN 60068-2-6	DIN EN 60068-2-6				
Shock	DIN EN 60068-2-27	DIN EN 60068-2-27				
Ordering data	Ordering data					
Description	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
Touch panel with graphics-capable TFT display, 1 x Ethernet, 2 x USB, and integrated runtime of the Visu+ visualization software	TP 3057M ¹⁾	2700901	1	TP 3057T ¹⁾	2700906	1
- Without fieldbus interface	TP 3057M PB ¹⁾	2700902	1	TP 3057T PB ¹⁾	2700907	1
Touch panel with graphics-capable TFT display, 1 x Ethernet, 2 x USB, and integrated runtime of the Visu+ visualization software	TP 3057M MPI ¹⁾	2700903	1	TP 3057T MPI ¹⁾	2700908	1
- PROFIBUS DP interface	TP 3057M CO ¹⁾	2700904	1	TP 3057T CO ¹⁾	2700909	1
- MPI interface	TP 3057M SER ¹⁾	2700905	1	TP 3057T SER ¹⁾	2700910	1
Accessories	Accessories					
Mounting kit, including hardware for installation	HMI SCB MOUNTING KIT 6	2701385	1	HMI SCB MOUNTING KIT 6	2701385	1
- Panel installation						



17.8 cm (7") TFT color display



26.4 cm (10.4") TFT color display



30.7 cm (12.1") TFT color display

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Technical data			Technical data			Technical data		
Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
TP 3070T ¹⁾	2700911	1	TP 3105T ¹⁾	2700916	1	TP 3121T ¹⁾	2700921	1
TP 3070T PB ¹⁾	2700912	1	TP 3105T PB ¹⁾	2700917	1	TP 3121T PB ¹⁾	2700922	1
TP 3070T MPI ¹⁾	2700913	1	TP 3105T MPI ¹⁾	2700918	1	TP 3121T MPI ¹⁾	2700923	1
TP 3070T CO ¹⁾	2700914	1	TP 3105T CO ¹⁾	2700919	1	TP 3121T CO ¹⁾	2700924	1
TP 3070T SER ¹⁾	2700915	1	TP 3105T SER ¹⁾	2700920	1	TP 3121T SER ¹⁾	2700925	1
Accessories			Accessories			Accessories		
HMI SCB MOUNTING KIT 6	2701385	1	HMI SCB MOUNTING KIT 8	2701387	1	HMI SCB MOUNTING KIT 8	2701387	1

HMIs for high-end applications

Touch panels

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Powerful touch panels with PC platform are the ideal solution for graphics-intensive visualization applications. The devices in the 5000 series are ideal for use in large networked machines and systems. Thanks to technical properties such as the X86 platform with Windows CE, the HMIs offer a fair price/performance ratio. You can therefore even implement intelligent operating concepts in complex systems.

Additional features:

- Cost-effective solution, since there are no additional costs for SCADA runtime: unlimited runtime license for VISU+ RT and AX OPC SERVER included
- Ethernet-based drivers available for connection to third-party systems
- Additional monitor connection possible by using the VGA interface (multi-user function)
- Remote access to user interface via web-capable devices thanks to Visu+ web client functionality
- Easy to maintain thanks to external data backup and event-oriented e-mail/SMS messaging
- High system availability thanks to OPC with redundancy support
- Particularly reliable thanks to integrated connection for uninterruptible power supply (UPS)



30.7 cm (12.1") TFT color display

Technical data		
	TP 5120T	TP 5120C
Display data		
Display	30.7 cm/12.1" TFT active	
Monitor resolution	800 x 600 Pixel (SVGA)	
Display lighting type	CCFL	
Brightness	400 cd/m ² , typical (adjustable)	
Display backlight MTBF	50000 h	
Color spectrum	65,536 colors	
Touch screen	Resistive industrial touch screen	
Computer data		
Operating systems	Windows CE 6.0	
Processor	Atom™ 1.6 GHz	Celeron® M 1.01 GHz
Main memory	1 GB DDR	
Data memory	CompactFlash®, 2 GB	
Interfaces	COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®	
External dimensions		
Width	365 mm	
Height	282 mm	
Depth	10 mm	
Installation dimensions		
Width	334 mm	
Height	253 mm	
Installation depth	94 mm	
General data		
Degree of protection	IP65 (front), IP20 (back)	
Ambient temperature (operation)	-20 °C ... 55 °C	
Mounting type	Installation in front plate	
Vibration (operation)	DIN EN 60068-2-6	
Shock	15g, 11 ms in accordance with IEC 60068-2-27	

Ordering data			
Description	Type	Order No.	Pcs. / Pkt.
Touch panel - Atom 1.6 GHz - Celeron M 1.01 GHz processor	TP 5120T TP 5120C	2700621 2701719	1 1
Accessories			
Stylus for touch screens	TOUCH PEN	2701379	1
USB flash memory	2 GB USB STICK	2701382	1
Mounting kit, including hardware for installation - Panel installation	VL PANEL MOUNTING KIT	2913159	1



38.1 cm (15") color TFT display



43.2 cm (17") TFT color display

Technical data

TP 5150T	TP 5150C
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38.1 cm/15" TFT active	43.2 cm/17" TFT active
1024 x 768 Pixel (XGA)	1280 x 1024 Pixel (SXGA)
CCFL	CCFL
350 cd/m ² , typical (adjustable)	350 cd/m ² , typical (adjustable)
50000 h	50000 h
65,536 colors	65,536 colors
Resistive industrial touch screen	Resistive industrial touch screen

Windows CE 6.0	Windows CE 6.0
Atom™ 1.6 GHz	Celeron® M 1.01 GHz
1 GB DDR	1 GB DDR
CompactFlash®, 2 GB	CompactFlash®, 2 GB
COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®	COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®

410 mm	452 mm
309 mm	356.5 mm
10 mm	10 mm

386.6 mm	424 mm
285 mm	329.5 mm
96 mm	99 mm

IP65 (front), IP20 (back)	IP65 (front), IP20 (back)
-20 °C ... 55 °C	-20 °C ... 50 °C
Installation in front plate	Installation in front plate
DIN EN 60068-2-6	DIN EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27	15g, 11 ms in accordance with IEC 60068-2-27

Technical data

TP 5170T	TP 5170C
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43.2 cm/17" TFT active	43.2 cm/17" TFT active
1280 x 1024 Pixel (SXGA)	1280 x 1024 Pixel (SXGA)
CCFL	CCFL
350 cd/m ² , typical (adjustable)	350 cd/m ² , typical (adjustable)
50000 h	50000 h
65,536 colors	65,536 colors
Resistive industrial touch screen	Resistive industrial touch screen

Windows CE 6.0	Windows CE 6.0
Atom™ 1.6 GHz	Celeron® M 1.01 GHz
1 GB DDR	1 GB DDR
CompactFlash®, 2 GB	CompactFlash®, 2 GB
COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®	COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®

410 mm	452 mm
309 mm	356.5 mm
10 mm	10 mm

386.6 mm	424 mm
285 mm	329.5 mm
96 mm	99 mm

IP65 (front), IP20 (back)	IP65 (front), IP20 (back)
-20 °C ... 55 °C	-20 °C ... 50 °C
Installation in front plate	Installation in front plate
DIN EN 60068-2-6	DIN EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27	15g, 11 ms in accordance with IEC 60068-2-27

Ordering data**Ordering data**

Type	Order No.	Pcs. / Pkt.
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TP 5150T	2700622	1
TP 5150C	2701720	1

Type	Order No.	Pcs. / Pkt.
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TP 5170T	2700623	1
TP 5170C	2701721	1

Accessories**Accessories**

TOUCH PEN	2701379	1
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2 GB USB STICK	2701382	1
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VL PANEL MOUNTING KIT	2913159	1
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TOUCH PEN	2701379	1
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2 GB USB STICK	2701382	1
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VL PANEL MOUNTING KIT	2913159	1
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HMIs and industrial PCs

HMIs for maritime applications

Touch panels

Notes:

1) EMC: Class A product, see page 553

HMI devices for maritime applications are the reliable and robust solution for demanding applications on ships. The devices are specifically tested and approved for shipbuilding.

Your advantages:

- Tested quality - certified according to GL, LR, BV, DNV, and ABS
- Flexible communication, even with third-party systems, thanks to numerous drivers
- Save costs and increase service life, thanks to LED backlighting that can be adjusted directly via buttons
- Increase system availability, thanks to temperature and voltage monitoring
- Save costs for acoustic signaling devices: integrated buzzer
- Global use: additional fonts are easy to install
- Cost-effective solution, since there are no additional costs for SCADA runtime: unlimited runtime license for VISU+ RT and AX OPC SERVER included



17.8 cm (7") TFT color display



Technical data

Display data	17.8 cm/7" TFT active
Display	800 x 480 Pixel (WVGA)
Monitor resolution	CCFL
Display lighting type	400 cd/m ² , typical (adjustable)
Brightness	50000 h
Display backlight MTBF	65,536 colors
Color spectrum	Resistive industrial touch screen
Touch screen	
Computer data	Windows CE 5.0
Operating systems	RISC ARM9™ CPU ; 200 MHz
Processor	64 Mbyte SDRAM
Main memory	32 Mbyte flash memory
Data memory	2x USB Host 2.0
Interfaces	
External dimensions	
Width	203 mm
Height	165 mm
Depth	5 mm
Installation dimensions	
Width	195 mm
Height	157 mm
Installation depth	56 mm
General data	
Degree of protection	IP65 (front), IP20 (back)
Ambient temperature (operation)	0 °C ... 50 °C
Mounting type	Installation in front plate
Vibration (operation)	DIN EN 60068-2-6
Shock	DIN EN 60068-2-27

Ordering data

Description	Type	Order No.	Pcs. / Pkt.
Touch panel with graphic-capable display - 7" TFT display - 10.4" TFT display - 12.1" TFT display - 15.1" TFT display	TP 07T/M 201 ¹⁾	2913234	1

Accessories

Stylus for touch screens	TOUCH PEN	2701379	1
USB flash memory	2 GB USB STICK	2701382	1
CMOS battery	HMI BATTERY	2701383	1
Mounting kit, including hardware for installation - Panel installation	HMI SCB MOUNTING KIT 6	2701385	1
Protective foil for touch screen	7" DISPLAY PROTECTIVE FOIL	2701374	1



26.4 cm (10.4") TFT color display



30.7 cm (12.1") TFT color display



38.1 cm (15") color TFT display

**Technical data**

26.4 cm/10.4" TFT active
640 x 480 Pixel (VGA)
LED
350 cd/m², typical (adjustable)
50000 h
65,536 colors
Resistive industrial touch screen

Windows CE 5.0
Xscale® PXA320, 806 MHz
64 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®

328 mm
265 mm
5 mm

303 mm
238 mm
57 mm

IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 10T/M 201 ¹⁾	2913247	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
HMI BATTERY	2701383	1
HMI SCB MOUNTING KIT 8	2701387	1
10,4" DISPLAY PROTECTIVE FOIL	2701376	1

Technical data

30.7 cm/12.1" TFT active
800 x 600 Pixel (SVGA)
LED
300 cd/m², typical (adjustable)
50000 h
65,536 colors
Resistive industrial touch screen

Windows CE 5.0
Xscale® PXA320, 806 MHz
64 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®

340 mm
285 mm
5 mm

315 mm
259 mm
62 mm

IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 12T/M 201 ¹⁾	2913250	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
HMI BATTERY	2701383	1
HMI SCB MOUNTING KIT 8	2701387	1
12,1" DISPLAY PROTECTIVE FOIL	2701377	1

Technical data

38.1 cm/15" TFT active
1024 x 768 Pixel (XGA)
LED
480 cd/m²
50000 h
256 colors
Resistive industrial touch screen

Windows CE 5.0
Xscale® PXA320, 806 MHz
64 Mbyte SDRAM
1 GB flash memory
2x USB Host 1.1, 1x Compact Flash®

400 mm
338 mm
5 mm

373 mm
312 mm
62 mm

IP65 (front), IP20 (back)
0 °C ... 50 °C
Installation in front plate
DIN EN 60068-2-6
DIN EN 60068-2-27

Ordering data		
Type	Order No.	Pcs. / Pkt.
TP 15T/M 201 ¹⁾	2913263	1

Accessories		
TOUCH PEN	2701379	1
2 GB USB STICK	2701382	1
HMI BATTERY	2701383	1
HMI SCB MOUNTING KIT 8	2701387	1
15,1" DISPLAY PROTECTIVE FOIL	2701378	1

Industrial PCs

Box PC for DIN rail mounting

Notes:

1) EMC: Class A product, see page 553

Box PCs are compact, easy to maintain, and powerful. They impress above all in sophisticated applications such as the measurement, control, and testing of process and machine data or distributed visualizations in conjunction with remote monitors. The numerous mounting options and scalable performance make box PCs the ideal platform for machine building and systems manufacturing.

Your advantages:

- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Versatile use, thanks to various mounting options, e.g., on the DIN rail
- Energy-efficient Intel® ATOM™ processors
- Large-scale compatibility, thanks to open IT standards, numerous interfaces and operating systems
- Particularly easy to maintain, thanks to easily accessible components in the IPC housing
- Can be used in harsh environments, thanks to the extended temperature range (-40°C to +65°C) and shock resistance up to 20g

Additional features:

- Configurable based upon customer requirements
- One CF card slot with option for industrial CompactFlash up to 32 GB (no HDD support)
- System protection through the use of embedded operating systems



Box PC with extended temperature range

Technical data			
Computer data			Windows Embedded Standard 2009
Operating systems			Atom™ 1.1 GHz Z510PT
Processor (configuration option)			1 GB DDR2 SODIMM
Main memory (configuration option)			CompactFlash®
Data memory (configuration option)			COM 1 (RS-232/ RS-422/ RS-485 selectable), 6x USB, 1x VGA
Interfaces			None
Slots			VGA
Monitor output			2x Ethernet (10/100/1000 Mbps), RJ45
Network			24 V DC ±20%
Power supply unit			IP20
General data			-40 °C ... 65 °C
Degree of protection			0% ... 95% (no condensation)
Ambient temperature (operation)			Wall or DIN rail
Permissible humidity (operation)			DIN EN 60068-2-6
Mounting type			20g, 11 ms in accordance with IEC 60068-2-27
Vibration (operation)			
Shock			
Ordering data			
Description	Type	Order No.	Pcs. / Pkt.
Industrial computer	VL BPC MINI	2700773	1
Accessories			
CompactFlash® card	VL 1 GB CF VL 2 GB CF VL 4 GB CF VL 8 GB CF	2913155 2913156 2913157 2913158	1 1 1 1



Configurable box PC



Box PC

Technical data

Windows Embedded Standard 7
 Atom™ 1.66 GHz N455
 2 GB DDR3 SODIMM
 CompactFlash®
 1x COM (RS-232/ RS-422/ RS-485 selectable), 2x COM (RS-232),
 4x USB, 1x VGA
 None
 VGA
 2x Ethernet (10/100/1000 Mbps), RJ45
 24 V DC ±20%

IP20
 0 °C ... 50 °C
 5% ... 95%
 Wall or DIN rail
 DIN EN 60068-2-6
 15g, 11 ms in accordance with IEC 60068-2-27

Technical data

No operating system
 Atom™ 1.66 GHz N455
 2 GB DDR3 SODIMM
 Empty CompactFlash® slot
 1x COM (RS-232/ RS-422/ RS-485 selectable), 2x COM (RS-232),
 4x USB, 1x VGA
 None
 VGA
 2x Ethernet (10/100/1000 Mbps), RJ45
 24 V DC ±20%

IP20
 0 °C ... 50 °C
 5% ... 95%
 Wall mount
 DIN EN 60068-2-6
 15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VL BPC 1000 ¹⁾	2701291	1

Accessories

VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Ordering data

Type	Order No.	Pcs. / Pkt.
VL BPC 1001 ¹⁾	2701290	1

Accessories

VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Industrial PCs

Box PCs for "book" and wall mounting

The box PCs for "book" and wall mounting offer all the technical features and functions of DIN rail box PCs.

Additional features:

- Energy-efficient Intel® Atom™, Celeron® M and Core™2 Duo processors
- Mounting in "book" form or wall mounting
- Easily removable HDD (hard disk drive) and SSD (solid state drive)
- Large-scale compatibility, thanks to open IT standards, numerous interfaces and operating systems
- Two CF card slots with option for industrial CompactFlash up to 32 GB
- Optional expansion slots for installation of PCI cards

Notes:

¹⁾ Configuration options can affect the operating temperature. See user manual for details.



Box PC with or without PCI



Technical data

Computer data	
Processor (configuration option)	Atom™ 1.6 GHz N270 Celeron® M 1.01 GHz Core™2 Duo 1.5 GHz
Main memory (configuration option)	512 MB DDR SODIMM 1 GB DDR SODIMM 2 GB DDR SODIMM 3 GB DDR SODIMM
Data memory (configuration option)	2.5 in. SATA hard drive 2.5 in. SATA solid-state drive
Optical drive (configuration option)	DVD-RW
Interfaces	COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®
Slots	2x PCI
Monitor output	VGA, DVI-D
Network	2x Ethernet (10/100/1000 Mbps), RJ45
Power supply unit	24 V DC ±20%
General data	
Degree of protection	IP65 (front), IP20 (back)
Ambient temperature (operation)	-20 °C ... 55 °C ¹⁾
Permissible humidity (operation)	5% ... 95% (no condensation)
Mounting type	Panel mount for control cabinet, wall mount, or bookshelf mount
Vibration (operation)	DIN EN 60068-2-6
Shock	15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Description	Type	Order No.	Pcs. / Pkt.
Industrial computer	VALUELINE IPC	2913108	1

Accessories

Mounting kit, including hardware for installation	VL BOOKSHELF MOUNTING KIT VL BOOKSHELF MOUNTING KIT/EXPANSION	2913160 2913164	1 1
Removable hard drive tray	HDD TRAY KIT	2913185	1
2.5" SATA solid state drive kit, including tray	VL 16 GB SSD (SLC) KIT VL 32 GB SSD (SLC) KIT	2913199 2913200	1 1
CompactFlash® card	VL 512 MB CF VL 1 GB CF VL 2 GB CF VL 4 GB CF VL 8 GB CF	2913154 2913155 2913156 2913157 2913158	1 1 1 1 1

Box PCs for “book” and wall mounting

The latest generation of box PCs for “book” and wall mounting offer maximum computing capacity thanks to their powerful Intel® Core™ i7 processors. In addition, the box PC does not require an internal fan – cooling is ensured with just one external convection fan.

Additional features:

- Energy efficient and powerful Intel® i7 1.33 GHz and i7 2.53 GHz Core processors.
- Mounting in “book” form or wall mounting
- Easily removable HDD (hard disk drive) and SSD (solid state drive)
- One CF card slot with option for industrial CompactFlash up to 32 GB (no HDD support)

Notes:

1) EMC: Class A product, see page 553



Box PC with Intel® i7 technology

Computer data

Processor (configuration option)

Intel® Core™ i7-660UE (4 MB L2 cache, 1.33 GHz)
Intel® Core™ i7-610E (4 MB L2 cache, 2.53 GHz)

Main memory (configuration option)

2 GB DDR3-1066 SODIMM
4 GB DDR3-1066 SODIMM
8 GB DDR3-1066 SODIMM

Data memory (configuration option)

2.5 in. SATA hard drive
2.5 in. SATA solid-state drive
CompactFlash®

Interfaces

COM 1 (RS-232), 1x DVI-I, 4x USB, 1x Compact Flash®

Monitor output

DVI-I
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC ±20%

Network

Power supply unit

IP65 (front), IP20 (back)
0 °C ... 45 °C
5% ... 95% (no condensation)
Panel mount for control cabinet, wall mount, or bookshelf mount

General data

Degree of protection

Ambient temperature (operation)

Permissible humidity (operation)

Mounting type

Vibration (operation)

DIN EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27

Shock

Description

Industrial computer, high performance with Intel® i7 processor

Type	Order No.	Pcs. / Pkt.
VL IPC P7000 ¹⁾	2701127	1

Ordering data

Mounting kit, including hardware for installation

- For bookshelf installation
- For wall installation

VL BOOKSHELF MOUNTING KIT	2913160	1
VL WALL MOUNTING KIT	2913161	1

Removable hard drive tray

VL I7 HDD TRAY	2701015	1
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2.5" SATA HDD kit, including tray

- 250 GB
- 320 GB

VL I7 250 GB HDD KIT	2701011	1
VL I7 320 GB HDD KIT	2701012	1

2.5" SATA solid state drive kit, including tray

- 80 GB
- 160 GB

VL I7 80 GB SSD KIT	2701013	1
VL I7 160 GB SSD KIT	2701014	1

CompactFlash® card

- 1 GB
- 2 GB
- 4 GB
- 8 GB

VL 1 GB CF	2913155	1
VL 2 GB CF	2913156	1
VL 4 GB CF	2913157	1
VL 8 GB CF	2913158	1

Industrial PCs

Monitors with touch function

Monitors with touch function are the ideal extension to the industrial PC: operation and monitoring without mouse and keyboard. The robust LCD devices can be used directly on the machine, e.g., as a remote operating solution. Thanks to their numerous interfaces, they provide the best possible connection to your industrial PC.

Your advantages:

- Intuitive operation without mouse or keyboard, thanks to touch function
- High shock resistance and electromagnetic compatibility, thanks to robust housing suitable for industrial applications
- Large-scale compatibility, thanks to open IT standards and numerous interfaces
- Individual solutions, thanks to customer-specific hardware adaptations

Additional features:

- Monitors in various display sizes for connection to any industrial PC with VGA or DVI port
- Optional front USB interface provides additional connection options for I/O devices



30.7 cm (12.1") touch screen

Technical data			
Display data	30.7 cm/12.1" TFT active		
Display	800 x 600 Pixel (SVGA)		
Monitor resolution	CCFL		
Display lighting type	400 cd/m ² , typical (adjustable)		
Brightness	> 50000 h		
Display backlight MTBF	Resistive industrial touch screen		
Touch screen			
General data			
Degree of protection	IP65 (front), IP20 (back)		
Ambient temperature (operation)	0 °C ... 55 °C		
Permissible humidity (operation)	5% ... 95%		
Mounting type	Panel cutout or VESA mount		
Vibration (operation)	DIN EN 60068-2-6		
Shock	15g, 11 ms in accordance with IEC 60068-2-27		
Ordering data			
Description	Type	Order No.	Pcs. / Pkt.
Flat panel monitor with resistive touch screen			
- Without front USB port	VL FPM 12	2913015	1
Flat panel monitor with resistive touch screen			
- With front USB port	VL FPM 12U	2913016	1
Accessories			
Mounting kit, including hardware for installation			
- Panel installation	VL PANEL MOUNTING KIT	2913159	1
- Panel installation for 15- and 17-in. displays in heavier gauge panels	VL PANEL+ MOUNTING KIT	2701177	1
Protective cover for 15-in touchscreen			



38.1 cm (15") touch screen



43.2 cm (17") touch screen



48 cm (19") touch screen

Technical data			Technical data			Technical data		
Ordering data			Ordering data			Ordering data		
Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
VL FPM 15	2913017	1	VL FPM 17	2913019	1	VL FPM 19U	2913021	1
VL FPM 15U	2913018	1	VL FPM 17U	2913020	1			
Accessories			Accessories			Accessories		
VL PANEL MOUNTING KIT VL PANEL+ MOUNTING KIT	2913159 2701177	1 1	VL PANEL MOUNTING KIT VL PANEL+ MOUNTING KIT	2913159 2701177	1 1	VL PANEL MOUNTING KIT VL PANEL+ MOUNTING KIT	2913159 2701177	1 1
VL 15" DISPLAY PROTECTIVE FOIL	2913165	1						

The EL 1000 series consists of configurable embedded panel PCs with widescreen display and appropriate design. When it comes to automating simple applications in restricted spaces, they are the ideal solution: narrow, fanless, and with comprehensive functions. Depending on your requirements, use Intel® Atom™ processors or – for graphics-intensive applications – processors from the AMD G series.

Additional features:

- Front plate made from anodized aluminum
- Can be configured according to customer requirements
- Widescreen displays from 7" to 15.4"
- With Windows Embedded Standard 7 as an option



17.8 cm (7") widescreen display

Technical data			
Display data	17.8 cm/7" TFT active		
Display	800 x 480 Pixel (WVGA)		
Monitor resolution	LED		
Display lighting type	350 cd/m² typical (adjustable)		
Brightness	40000 h		
Display backlight MTBF	Resistive industrial touch screen		
Touch screen			
Computer data			
Processor (configuration option)	Atom™ 1.6 GHz Z530		
Main memory (configuration option)	AMD Embedded G-Series (T40R), 1.0 GHz		
Data memory (configuration option)	1 GB DDR2 RAM		
	2 GB DDR3 RAM		
Optical drive (configuration option)	Flash SSD 8 GB		
Interfaces	Flash SSD 16 GB		
Slots	Flash SSD 32 GB		
Monitor output	None		
Network	4 x USB host 2.0		
Power supply unit	SD card		
General data	None		
Degree of protection	2x Ethernet (10/100/1000 Mbps), RJ45		
Ambient temperature (operation)	24 V DC +/- 20%		
Permissible humidity (operation)			
Mounting type	IP65 (front), IP20 (back)		
Vibration (operation)	0 °C ... 50 °C		
Shock	20% ... 85% (no condensation)		
	Panel PC for mounting in the front panel		
	DIN EN 60068-2-6		
	DIN EN 60068-2-27		
Ordering data			
Description	Type	Order No.	Pcs. / Pkt.
Panel PC	EL PPC7 1000	2701481	1
Accessories			
Mounting kit, including hardware for installation	HMI SCB MOUNTING KIT 4	2701384	1
- Panel installation			
Stylus for touch screens	TOUCH PEN	2701379	1
Protective foil for touch screen	7" DISPLAY PROTECTIVE FOIL	2701374	1

N

N

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22.9 cm (9") widescreen display



30.5 cm (12.1") widescreen display



39.05 cm (15.4") widescreen display

Technical data			Technical data			Technical data		
Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
22.9 cm/9" TFT active 800 x 480 Pixel (WVGA) LED 360 cd/m ² typical (adjustable) 70000 h Resistive industrial touch screen			30.5 cm/12" TFT active 1280 x 800 Pixel (WXGA) LED 320 cd/m ² typical (adjustable) 50000 h Resistive industrial touch screen			39.05 cm/15.4" TFT active 1280 x 800 Pixel (WXGA) LED 360 cd/m ² typical (adjustable) 50000 h Resistive industrial touch screen		
Atom™ 1.6 GHz Z530 AMD Embedded G-Series (T40R), 1.0 GHz 1 GB DDR2 RAM 2 GB DDR3 RAM Flash SSD 8 GB Flash SSD 16 GB Flash SSD 32 GB None 4 x USB host 2.0 SD card None 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC +/- 20%			Atom™ 1.6 GHz Z530 AMD Embedded G-Series (T40R), 1.0 GHz 1 GB DDR2 RAM 2 GB DDR3 RAM Flash SSD 8 GB Flash SSD 16 GB Flash SSD 32 GB None 4 x USB host 2.0 SD card None 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC +/- 20%			Atom™ 1.6 GHz Z530 AMD Embedded G-Series (T40R), 1.0 GHz 1 GB DDR2 RAM 2 GB DDR3 RAM Flash SSD 8 GB Flash SSD 16 GB Flash SSD 32 GB None 4 x USB host 2.0 SD card None 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC +/- 20%		
IP65 (front), IP20 (back) 0 °C ... 50 °C 20% ... 85% (no condensation) Panel PC for mounting in the front panel DIN EN 60068-2-6 DIN EN 60068-2-27			IP65 (front), IP20 (back) 0 °C ... 50 °C 20% ... 85% (no condensation) Panel PC for mounting in the front panel DIN EN 60068-2-6 DIN EN 60068-2-27			IP65 (front), IP20 (back) 0 °C ... 50 °C 20% ... 85% (no condensation) Panel PC for mounting in the front panel DIN EN 60068-2-6 DIN EN 60068-2-27		
Ordering data			Ordering data			Ordering data		
Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
EL PPC9 1000	2701482	1	EL PPC12 1000	2701484	1	EL PPC15 1000	2701485	1
Accessories			Accessories			Accessories		
HMI SCB MOUNTING KIT 6	2701385	1	HMI SCB MOUNTING KIT 8	2701387	1	HMI SCB MOUNTING KIT 8	2701387	1
TOUCH PEN	2701379	1	TOUCH PEN	2701379	1	TOUCH PEN	2701379	1
9" DISPLAY PROTECTIVE FOIL	2701375	1						

Industrial PCs

Panel PCs

Panel PCs combine the advantages of a modern industrial PC with the operation and monitoring functions of a touch monitor. They are designed for installation in the front of the control cabinet or for use at field level. This means that you benefit from high-performance PC technology directly on site.

Your advantages:

- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Processor performance suited to the application: with energy-efficient Intel® Core™ i7, Intel® Core™2 Duo or Intel® Atom™ processors
- Operating systems for every application, such as Windows XP, Windows 7, Windows Embedded Standard 2009 or Windows Embedded Standard 7
- Individual solutions thanks to customer-specific adaptations to hardware and software
- Particularly easy to maintain thanks to easily accessible components in the appropriately designed PC housing
- Large-scale compatibility, thanks to open IT standards and numerous interfaces
- Display diagonals from 12" to 24"
- Optional expansion slots for installation of PCI cards

Notes:

- 1) Configuration options can affect the operating temperature. See user manual for details.
- 2) EMC: Class A product, see page 553



Configurable panel PC



Technical data

Display data	Without 30.7 cm/12.1" TFT active 38.1 cm/15" TFT active 43.2 cm/17" TFT active 48.3 cm/19" TFT active 60.9 cm/24" - TFT active
Computer data	Atom™ 1.6 GHz N270 Celeron® M 1.01 GHz Core™2 Duo 1.5 GHz 512 MB DDR SODIMM 1 GB DDR SODIMM 2 GB DDR SODIMM 3 GB DDR SODIMM 2.5 in. SATA hard drive 2.5 in. SATA solid-state drive
Main memory (configuration option)	DVD-RW COM 1 (RS-232), 1x VGA, 4x USB, 2x CompactFlash®
Data memory (configuration option)	2x PCI VGA, DVI-D 2x Ethernet (10/100/1000 Mbps), RJ45 24 V DC ±20%
Optical drive (configuration option)	IP65 (front), IP20 (back) -20 °C ... 55 °C) 5% ... 95% (no condensation) Panel mount for control cabinet, wall mount, or bookshelf mount
Interfaces	DIN EN 60068-2-6 15g, 11 ms in accordance with IEC 60068-2-27
Slots	
Monitor output	
Network	
Power supply unit	
General data	
Degree of protection	
Ambient temperature (operation)	
Permissible humidity (operation)	
Mounting type	
Vibration (operation)	
Shock	

Ordering data

Description	Type	Order No.	Pcs. / Pkt.
Industrial computer			
Industrial computer , high performance with Intel® i7 processor	VALUELINE IPC	2913108	1

Accessories

Mounting kit , including hardware for installation	VL PANEL MOUNTING KIT VL PANEL+ MOUNTING KIT	2913159 2701177	1 1
Protective cover for 15-in touchscreen	VL 15" DISPLAY PROTECTIVE FOIL	2913165	1



**Configurable panel PC
with Intel® i7 technology**

Technical data

Without
30.7 cm/12.1" TFT active
38.1 cm/15" TFT active
43.2 cm/17" TFT active
48.3 cm/19" TFT active
60.9 cm/24" - TFT active

Intel® Core™ i7-660UE (4 MB L2 cache, 1.33 GHz)
Intel® Core™ i7-610E (4 MB L2 cache, 2.53 GHz)

2 GB DDR3-1066 SODIMM
4 GB DDR3-1066 SODIMM
8 GB DDR3-1066 SODIMM

2.5 in. SATA hard drive
2.5 in. SATA solid-state drive
CompactFlash®
None
COM 1 (RS-232), 1x DVI-I, 4x USB, 1x Compact Flash®

None
DVI-I
2x Ethernet (10/100/1000 Mbps), RJ45
24 V DC ±20%

IP65 (front), IP20 (back)
0 °C ... 45 °C
5% ... 95% (no condensation)
Panel mount for control cabinet, wall mount, or bookshelf mount

DIN EN 60068-2-6
15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
VL IPC P7000 ²⁾	2701127	1

Accessories

VL PANEL MOUNTING KIT VL PANEL+ MOUNTING KIT	2913159 2701177	1 1
VL 15" DISPLAY PROTECTIVE FOIL	2913165	1

Industrial PCs

IP65 panel PCs

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The panel PCs of the DL 1000 series combine high-performance technology and attractive design. They are narrow, feature IP65 protection, multi-touch capability, and are always close to the action as they can be installed quickly and easily directly on the machine.

Thanks to their fanless and energy-efficient design, they are the ideal solution for future operating concepts in industrial systems: easy maintenance, custom configuration, and robust.

Additional features:

- Single or multi-touch screen
- Energy-efficient Intel® ATOM™ E series processors
- Can be configured individually
- Fully enclosed housing with IP65 protection
- Extended temperature range of -20°C to +55°C
- User-friendly handling thanks to the attractive and practical industrial design
- Easy access to all important components

Notes:

¹⁾ Configuration options can affect the operating temperature. See user manual for details.



Panel PC in IP65,
37.8 cm (15") display

Technical data	
Display data	37.8 cm/15 in. TFT 1024 x 768 Pixel (XGA) LED 400 cd/m ² , typical (adjustable)
Display lighting type	50000 h
Brightness	Resistive industrial touch screen
Display backlight MTBF	
Touch screen	
Computer data	Atom™ 1.6 GHz E680T 2 GB DDR2 800 2.5 in. SATA hard drive None
Processor (configuration option)	1x COM selectable (RS-232, RS-485, RS-422), 5x USB 2.0, 1x audio
Main memory (configuration option)	None
Data memory (configuration option)	2.5 in. SATA hard drive
Optical drive (configuration option)	24 V DC ±20%
Interfaces	
Slots	IP65
Monitor output	-20 °C ... 55 °C ¹⁾
Network	5% ... 95%
Power supply unit	VESA MIS-D (100 x 100)
General data	1g according to EN 60068-2-6
Degree of protection	15g, 11 ms in accordance with IEC 60068-2-27
Ambient temperature (operation)	
Permissible humidity (operation)	
Mounting type	
Vibration (operation)	
Shock	

Ordering data			
Description	Type	Order No.	Pcs. / Pkt.
IPC with IP65 protection with touch screen, enclosed housing	DL PPC15 1000	2701665	1
IPC with IP65 protection with touch screen, enclosed housing			

N

**Panel PC in IP65,
37.8 cm (15") display
Multi-touch**

Technical data

37.8 cm/15 in. TFT
 1024 x 768 Pixel (XGA)
 LED
 400 cd/m², typical (adjustable)
 50000 h
 Resistive industrial touch screen

Atom™ 1.6 GHz E680T
 2 GB DDR2 800
 2.5 in. SATA hard drive
 None
 1x COM selectable (RS-232, RS-485, RS-422), 5x USB 2.0,
 1x audio
 None
 None
 2x Ethernet (10/100/1000 Mbps), RJ45
 24 V DC ±20%

IP65
 -20 °C ... 55 °C¹⁾
 5% ... 95%
 VESA MIS-D (100 x 100)
 1g according to EN 60068-2-6
 15g, 11 ms in accordance with IEC 60068-2-27

Ordering data

Type	Order No.	Pcs. / Pkt.
DL PPC15M 1000	2701666	1

Industrial PCs

IP65 panel PCs

The compact and robust panel PCs with IP65 protection allow you to use reliable PC technology directly on the machine. Thanks to WLAN capability, the devices can be installed without any time-consuming or costly wiring – a huge advantage for machines used in various locations. High-performance wireless technology allows you to transmit even large volumes of data reliably and quickly.

Additional features:

- Optimum network connection by means of Gigabit Ethernet or WLAN
- Energy-efficient Intel® ATOM™ processors
- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Fully enclosed housing with IP65 protection
- Extended temperature range of -20°C to +55°C
- Comprehensive range of accessories including practical brackets that allow you to install your panel PC in a space-saving and reliable manner.

Notes:
1) EMC: Class A product, see page 553



20.3 cm (8") display

Technical data

Display data	20.3 cm/8" TFT active 800 x 480 Pixel (WVGA)
Display	LED
Monitor resolution	400 cd/m², typical (adjustable)
Display lighting type	> 50000 h
Brightness	Resistive industrial touch screen
Display backlight MTBF	
Touch screen	
Computer data	
Processor (configuration option)	Atom™ 1.1 GHz Z510
Main memory (configuration option)	1 GB DDR2 RAM 2 GB DDR2 RAM
Data memory (configuration option)	Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB
Interfaces	COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse
Optional interfaces	Wireless LAN
Graphics card	Intel® SCH US15W with integrated graphics
Network	2x Ethernet (10/100/1000 MBit), RJ45
Power supply unit	24 V DC +/- 20%
External dimensions	
Width	254 mm
Height	182 mm
Depth	62 mm
General data	
Degree of protection	IP65
Ambient temperature (operation)	-20 °C ... 55 °C
Permissible humidity (operation)	10% ... 85% (no condensation)
Mounting type	Depends on the configuration
Vibration (operation)	DIN EN 60068-2-6
Shock	DIN EN 60068-2-27

Ordering data

Description	Type	Order No.	Pcs. / Pkt.
Panel PC in IP65 with touchscreen, configurable	VMT 3008 ¹⁾	2913852	1
Panel PC with IP65 protection with touch screen, sunlight readable display, closed housing			

Accessories

Connector	FMC 1,5/ 4-STF-3,81 BD:PE-24V	1701307	50
External power supply unit	VMT 300X EXT PS	2913881	1
Table stand	VMT TISCHFUSS	2900946	1
Support bracket left/right	VMT HALTEWINKEL LI/RE	2900933	1
Bracket connection adapter	VMT GALGENANSCHLUSSADAPTER	2900962	1
Bracket according to VESA standard	VMT HALTERUNG VESA	2900959	1



**26.4 cm (10.4")
Sunlight readable display**



**30.7 cm (12.1")
Sunlight readable display**



38.1 cm (15") display

Technical data		Technical data		Technical data	
VMT 3010	VMT 3010 EXP SUN ¹⁾	VMT 3012 ¹⁾	VMT 3012 EXP SUN ¹⁾	VMT 3015 ¹⁾	VMT 3015 EXP SUN ¹⁾
26.4 cm/10.4" TFT active 1024 x 768 Pixel (XGA) LED 400 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen	30.7 cm/12.1" TFT active 800 x 600 Pixel (SVGA) CCFL 400 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen	38.1 cm/15" TFT active 1024 x 768 Pixel (XGA) LED 400 cd/m ² , typical (adjustable) > 50000 h Resistive industrial touch screen	Atom™ 1.1 GHz Z510 Atom™ 1.6 GHz Z530 1 GB DDR2 RAM 2 GB DDR2 RAM Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB 2.5" SSD 8 GB 2.5" SSD 16 GB 2.5" SSD 32 GB 2.5" HDD, min. 80 GB, 24 x 7 Automotive COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse Wireless LAN Intel® SCH US15W with integrated graphics 2x Ethernet (10/100/1000 MBit), RJ45 24 V DC +/- 20%	Atom™ 1.1 GHz Z510 Atom™ 1.6 GHz Z530 1 GB DDR2 RAM 2 GB DDR2 RAM Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB 2.5" SSD 8 GB 2.5" SSD 16 GB 2.5" SSD 32 GB 2.5" HDD, min. 80 GB, 24 x 7 Automotive COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse Wireless LAN Intel® SCH US15W with integrated graphics 2x Ethernet (10/100/1000 MBit), RJ45 24 V DC +/- 20%	Atom™ 1.1 GHz Z510 Atom™ 1.6 GHz Z530 1 GB DDR2 RAM 2 GB DDR2 RAM Flash SSD 1 GB Flash SSD 2 GB Flash SSD 4 GB Flash SSD 8 GB 2.5" SSD 8 GB 2.5" SSD 16 GB 2.5" SSD 32 GB 2.5" HDD, min. 80 GB, 24 x 7 Automotive COM 1 (RS-232), 3 x USB 2.0, 1 x on the front (can be deactivated via software), 1 x PS/2 keyboard/mouse Wireless LAN Intel® SCH US15W with integrated graphics 2x Ethernet (10/100/1000 MBit), RJ45 24 V DC +/- 20%
294 mm 244 mm 62 mm	338 mm 261 mm 62 mm	400 mm 305 mm 65 mm	IP65 -20 °C ... 55 °C 10% ... 85% (no condensation) Depends on the configuration DIN EN 60068-2-6 DIN EN 60068-2-27	IP65 -20 °C ... 55 °C 10% ... 85% (no condensation) Depends on the configuration DIN EN 60068-2-6 DIN EN 60068-2-27	IP65 -20 °C ... 55 °C 10% ... 85% (no condensation) Depends on the configuration DIN EN 60068-2-6 DIN EN 60068-2-27

Ordering data			Ordering data			Ordering data		
Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.	Type	Order No.	Pcs. / Pkt.
VMT 3010	2701003	1	VMT 3012 ¹⁾	2913959	1	VMT 3015 ¹⁾	2913674	1
VMT 3010 EXP SUN ¹⁾	2700969	1	VMT 3012 EXP SUN ¹⁾	2700878	1			
Accessories								
MC 1,5/ 4-STF-3,81 BD:PE-24VSO	1771240	50	MC 1,5/ 4-STF-3,81 BD:PE-24VSO	1771240	50			
VMT 301X EXT PS	2913933	1	VMT 301X EXT PS	2913933	1			
VMT TISCHFUSS	2900946	1	VMT TISCHFUSS	2900946	1			
VMT HALTEWINKEL LI/RE	2900933	1	VMT HALTEWINKEL LI/RE	2900933	1			
VMT GALGENANSCHLUSSADAPTER	2900962	1	VMT GALGENANSCHLUSSADAPTER	2900962	1			
VMT HALTERUNG VESA	2900959	1	VMT HALTERUNG VESA	2900959	1			

Industrial PCs

Tablet PCs

Benefit from the advantages of modern networks and work with your portable industrial PC directly on site. The robust tablet PCs from Phoenix Contact are the ideal solution for performing mobile tasks and processes professionally, from both inside and outside the factory.

Your advantages:

- High system availability, thanks to a fanless design which is suitable for industrial applications and the absence of moving parts
- Energy-efficient Intel® ATOM™ or dual core processors
- Large-scale compatibility, thanks to open IT standards and numerous interfaces
- User-friendly handling thanks to the attractive and practical industrial design
- All-round protection against dust and splash water provided by IP54 housing with IP65 front
- Wireless connection via WLAN or Bluetooth
- Independence from the mains thanks to battery operation
- Comprehensive range of accessories



Tablet PC with 33.8 cm (13.3") display and Windows 7

Technical data			
Display data	33.8 cm/13.3" TFT active		
Display	1280 x 800 Pixel (WXGA)		
Monitor resolution	CCFL		
Display lighting type	400 cd/m², typical (adjustable)		
Brightness	> 50000 h		
Display backlight MTBF	Resistive industrial touch screen		
Touch screen			
Computer data			
Operating systems	Windows 7 32-bit Ultimate (multi-language)		
Processor	Atom™ 1.6 GHz Z530P		
Main memory	2 GB DDR2 RAM		
Data memory	2.5" HDD, min. 160 Gbyte (PATA)		
Interfaces	2x USB 2.0, 1x USB 2.0 recessed, WLAN 802.11 a/b/g, Bluetooth 2.0 Class 1 or Class 2		
Network	1 x Ethernet (10/100/1000 Mbit), RJ45		
Power supply unit	115/230 V AC/20 V DC external power supply unit		
General data			
Degree of protection	IP65 (front), IP54 (back)		
Ambient temperature (operation)	0 °C ... 40 °C		
Permissible humidity (operation)	10% ... 85% (no condensation)		
Mounting type	Mobile application		
Ordering data			
Description	Type	Order No.	Pcs. / Pkt.
Mobile tablet PC with touch screen, enclosed housing	TPC 6013	2700740	1
- Atom 1.6 GHz - 1.2 GHz dual core			
Accessories			
Hand strap for tablet PC	TPC 6013 HAND STRAP	2700613	1
3-point belt for tablet PC	TPC 6013 THREE-POINT BELT	2700614	1
Mechanical docking station for tablet PC	TPC 6013 MECHANICAL DOCKING	2700615	1
Replacement battery for TPC 6013	TPC 6013 SPARE RECHARGEABLE BA	2700744	1
Touch pens for tablet PC	TPC 6013 TOUCH PENS	2700616	1
Docking station for tablet PC	PORT REPLICATOR	2701343	1
ODU to V.24 (RS-232) cable for tablet PC			

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Tablet PC with 33.8 cm (13.3") display and Windows Embedded Standard 7



Tablet PC with 33.8 cm (13.3") display and Windows XP

Technical data

33.8 cm/13.3" TFT active
1280 x 800 Pixel (WXGA)
CCFL
400 cd/m², typical (adjustable)
> 50000 h
Resistive industrial touch screen

Windows Embedded Standard 7
Atom™ 1.6 GHz Z530P
2 GB DDR2 RAM
2.5" SSD, 16 Gbytes, minimum
2x USB 2.0, 1x USB 2.0 recessed, WLAN 802.11 a/b/g, Bluetooth 2.0 Class 1 or Class 2

1 x Ethernet (10/100/1000 Mbit), RJ45
20 V/3.5 A external

IP65 (front), IP54 (back)
0 °C ... 40 °C
10% ... 85% (no condensation)
Mobile application

Technical data

33.8 cm/13.3" TFT active
1280 x 800 Pixel (WXGA)
CCFL
400 cd/m², typical (adjustable)
> 50000 h
Resistive industrial touch screen

Windows XP-Multi
Dual Core™ 1.2 GHz
2 GB DDR2 RAM
2.5" HDD, min. 120 Gbyte (SATA)
2x USB 2.0, 1x USB 2.0 recessed, RS-232 to ODU plug, WLAN 802.11 a/b/g, Bluetooth 2.0 Class 1 or Class 2, 1x headphone out, 1x MIC IN, 2-megapixel autofocus camera

1 x Ethernet (10/100 Mbps), RJ45
115/230 V AC/20 V DC external power supply unit

IP65 (front), IP54 (back)
0 °C ... 40 °C
10% ... 85% (no condensation)
Mobile application

Ordering data

Type	Order No.	Pcs. / Pkt.
TPC 6013 S W7E	2701316	1

Ordering data

Type	Order No.	Pcs. / Pkt.
TPC 6013 P	2700611	1

Accessories

TPC 6013 HAND STRAP	2700613	1
TPC 6013 THREE-POINT BELT	2700614	1
TPC 6013 MECHANICAL DOCKING	2700615	1
TPC 6013 SPARE RECHARGEABLE BA	2700744	1
TPC 6013 TOUCH PENS	2700616	1
PORT REPLICATOR	2701343	1

Accessories

TPC 6013 HAND STRAP	2700613	1
TPC 6013 THREE-POINT BELT	2700614	1
TPC 6013 MECHANICAL DOCKING	2700615	1
TPC 6013 SPARE RECHARGEABLE BA	2700744	1
TPC 6013 TOUCH PENS	2700616	1
TPC 6013 CABLE ODU TO RS232	2700619	1